



## A PRUNING PRIMER

Along with the science of cultivating plants, the art of pruning has evolved. The skilled gardener knows methods for **manicuring magnolias**, rules for reducing roses, and tricks for trimming trumpetvines. Although not everyone has the inclination to become an expert, some information is needed for a clear understanding of basic pruning techniques.

Here are two ideas that should be kept in mind before leaping into your trees, saw in hand: First, *it is very difficult to change the natural growing habit or ultimate size of a plant by pruning*. A tree or shrub grows to look the way it does because of its genetic makeup and local environment. Pruning may change its shape or form temporarily but not ultimately. A silver maple is going to grow over 50 feet tall with wide spreading branches, and with somewhat brittle wood. Pruning will not change this. A pin oak's branches are going to droop; a weeping willow is going to weep. Will pruning change it? Nope. Why not appreciate the natural growth habit of each plant and take this into consideration when pruning?

Secondly, *all pruning is potentially harmful*. This is because each cut results in a wound which takes energy to close and can provide an entry for diseases. Any removal of live branches also means a loss of food producing leaves. This immediately puts the plant on a "diet" and forces it to re-establish a balance between the branches and root system.

Does this mean that trees and shrubs should never be pruned? No, but you may use it as a good excuse for doing less of it at a time. Most healthy plants can tolerate at least some pruning that will allow us to "help" them. Some pruning is essential. Broken, hazardous, or dead limbs and branches should always be removed when they are noticed. Limb removal may be necessary for adjacent construction work or for free use of space around a tree. Highly cultured plants grown for flowers, fruits, or foliage will require regular, exacting pruning.

### *What is the best time to prune?*

This depends upon the objective or goal of the pruning. The natural growth cycle of plants in this climate begins with a flush of top growth in the spring, followed by gradual storing of manufactured food in the roots and slowed top growth, then dormancy. Pruning during the late winter will allow the plant to replace lost branches and foliage during the growing season and will allow resulting wounds to close faster. Since existing roots are ready to support a now reduced top, new growth will appear to be more vigorous.

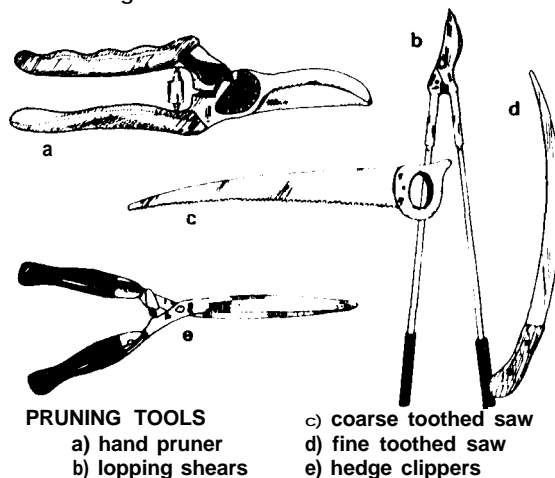
"Bleeding," or loss of liquids moving up from the roots, is a problem with some species when pruned or otherwise wounded in the spring. This can be avoided somewhat by pruning in winter, usually not later than the last part of January. In most years this will allow the freshly exposed

wood to harden before sap flow begins. If only a small portion of the crown will be affected, pruning may be done in mid-summer.

Pruning *during the summer*, after leaves have fully expanded, will cause a loss of food production because of a loss of foliage. This will in turn restrict root development and slow the total growth of the tree or shrub. Moderate pruning at this time will discourage excessive resprouting. Watersprouts or sucker growth might be removed at this time. If a large portion of the top is removed, the plant may be weakened.

### *What kind of tools are needed?*

Probably not as many as the hardware stores would like to sell you, but more than a pair of hedge clippers. A good pair of hand pruners will permit cuts to be made on twigs up to about the thickness of a fat pencil. Larger twigs can be removed with longer handled lopping shears, but these are not really necessary for most amateurs. A fine toothed pruning saw is more versatile and can be used on limbs up to two inches in diameter or more. A coarse toothed pruning saw is desirable for large limbs.



PRUNING TOOLS

a) hand pruner

b) lopping shears

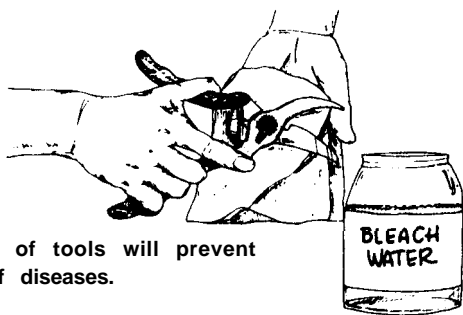
c) coarse toothed saw

d) fine toothed saw

e) hedge clippers

Tools that should not be used, by amateurs at least, are axes and chain saws, as they produce too rough a cut. Hedge clippers should be used only for shearing very fine twigs and foliage. Shearing is *not* the same as pruning.

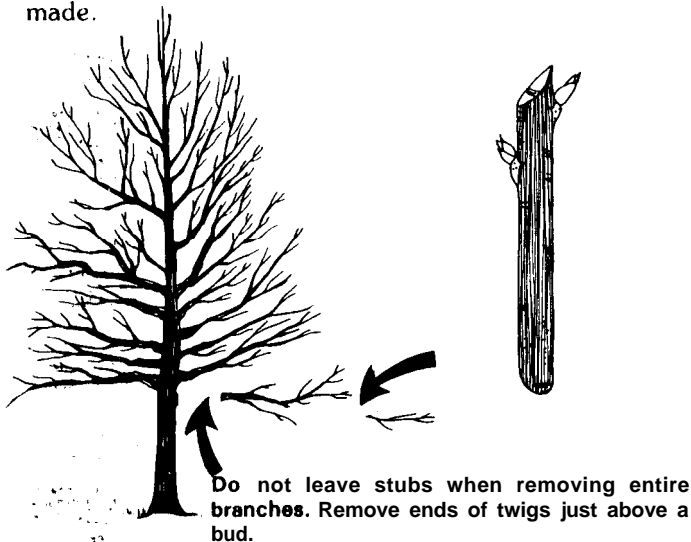
Pruning equipment should be kept *clean* and *sharp*. Diseases can be easily spread from tree to tree after making just one cut on an infected plant. Although diseases are sometimes difficult to diagnose, you should suspect trees with wilted or browning leaves, dead or dying branches, or those that are generally spindly and weak. Every so often, sterilize pruning tools by dipping into or wiping with a fresh batch of bleach/water mixed about one part bleach to ten parts water. When working on a diseased tree, sterilize after each cut. Be sure to rinse and oil all tools sterilized with bleach before putting them away to prevent rusting.



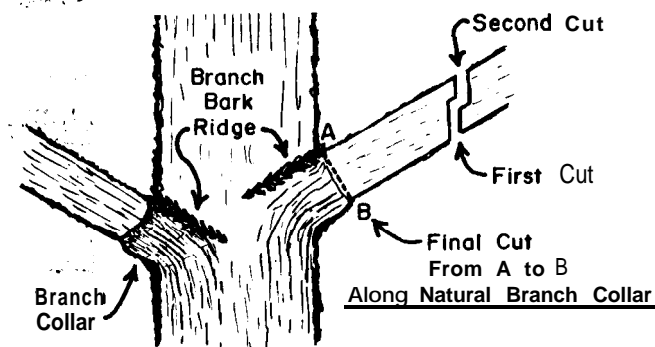
Sterilizing of tools will prevent spread of diseases.

#### How should pruning cuts be made?

No matter what the objective, pruning cuts should be made so that the tree or shrub may close the resulting wound as easily as possible. Generally, remove parts of a twig or branch at their origin, so that *no stubs* remain. Remove tips of branches back to a good bud or to the next larger branch. Try to visualize the result of the pruning before the cut is made.



Removal of large, heavy limbs is a job for the safety conscious. Use common sense in planning the fall of a limb before making cuts. To prevent bark from tearing off below the limb, use the three-cut method.

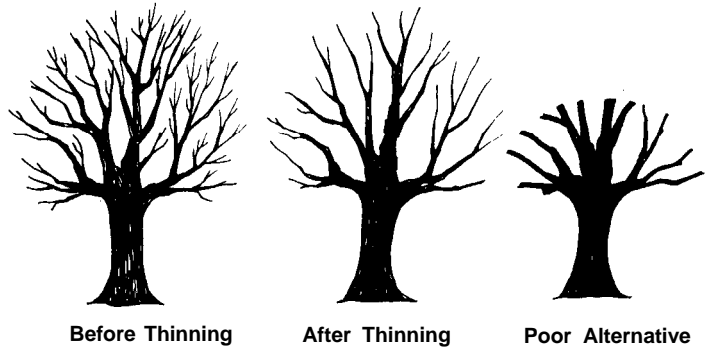


Final cut should not be flush with trunk.

#### Should trees be topped?

No! This practice drastically reduces the food producing capacity, destroys the natural growth habit, and creates many large wounds. Some trees, notably maples, will tolerate this kind of abuse but this is not reason to continue the practice.

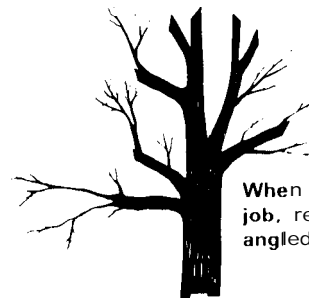
If large limbs must be removed, select only the problem or offending limbs and remove them entirely, using the three cut method, leaving no stubs. If possible, remove smaller branches, leaving larger limbs.



A tree crown may be thinned by removing entire branches, but not by more than 1/3 of the total.

#### What if a tornado, Godzilla, or other catastrophe breaks or kills most of the crown?

Remove limbs as needed, and if it is necessary to make "stubbed off" cuts, make them at roughly 45° angles with the limb to encourage eventual wound closing. It is interesting to note that storm damage to trees can many times be traced to earlier topping or other poor pruning practices.



When emergencies will not allow a thorough job, remove only broken limbs. Make clean, angled cuts, facing down on lateral branches.

#### When should I call on a professional arborist?

When your job looks too big or too dangerous to handle alone. A professional crew will likely be able to do the work much faster and more safely with specialized equipment. Make sure there is a clear understanding of the work to be done and the cost.

#### How can pruning problems be avoided?

By working with your trees and shrubs. Picture the future size and shape of young plants, taking into consideration their natural *growth habit*. If possible, do this even before planting them. Select species to perform the way you want them to without extensive pruning. Ask your nurseryman about growth habits of plants, or consult a reference book at the library.

With the natural growth habit in mind, remove only a small percentage of limbs in any one year. Prune larger limbs in late winter to allow faster wound closure. Don't leave stubs of branches. Use sharp, clean tools to make cutting easier and avoid spreading diseases. Prune with a purpose.

And in pruning work, as in sculpting a bust, plan ahead.